

Application No. 09/772,134

AMENDMENTS

IN THE CLAIMS:

Please amend the claims as follows:

1-6. Original

C1

7. (Currently Amended) An isolated and purified nucleic acid molecule encoding the biologically active KCC3 polypeptide of claim 1 a biologically active KCC3 potassium-chloride cotransporter polypeptide comprising:

- (a) a polypeptide encoded by a nucleic acid sequence as set forth in any of SEQ ID NOs:3, 5, 7, 9 and 15;
- (b) a polypeptide encoded by a nucleic acid sequence having 75% or greater sequence identity to nucleotides 1-434 of SEQ ID NOs:3, 5, 7, 9 and 15;
- (c) a polypeptide having an amino acid sequence as set forth in SEQ ID NOs:4, 6, 8, 10 and 16;
- (d) a polypeptide which is a biological equivalent of the polypeptide set forth in SEQ ID NOs:4, 6, 8, 10 and 16;
- (e) a polypeptide which is immunologically cross-reactive with an antibody which is immunoreactive with a polypeptide comprising part or all of the first 90 amino acids of any SEQ ID NOs:4, 6, 8, 10 and 16; or
- (f) a polypeptide encoded by a nucleic acid molecule capable of hybridizing under stringent conditions to a nucleic acid molecule comprising the first 434 nucleotides of any of SEQ ID NOs:3, 5, 7, 9 and 15, or complement thereof.

8-100. Original

Application No. 09/772,134

RESTRICTION PRESENTED

The claims have been restricted by the U.S. Patent and Trademark Office (hereinafter the "Patent Office") into the following groups of inventions:

<u>Groups</u>	<u>Claims</u>	<u>Subject Matter</u>
I	1-3, 58	An isolated KCC3 potassium-chloride cotransporter polypeptide
II	4-6, 77-78	An isolated anti-KCC3 antibody
III	7-13, 59	An isolated nucleic acid encoding a KCC3 polypeptide
IV	14-17, 58	An isolated KCC4 potassium-chloride cotransporter polypeptide
V.	18-20, 77-78	An isolated anti-KCC4 antibody.
VII	21-28, 59	An isolated nucleic acid encoding a KCC4 polypeptide
VII	29-33, 58	An isolated KCC2 potassium-chloride cotransporter polypeptide
VIII	34-36, 77-78	An isolated anti-KCC2 antibody
IX	37-43, 59	An isolated nucleic acid encoding a KCC2 polypeptide
X	44	A transgenic non-human animal having incorporated

into its genome a nucleic acid molecule encoding a biologically active KCC2, KCC3, or KCC4 polypeptide.

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| XI | 45-46 | An isolated KKC2, KCC3, or KCC4 genomic DNA molecule |
| XII | 47-49 | A method of producing an antibody immunoreactive with a KCC polypeptide |
| XIII | 50 | A method of detecting a potassium-chloride cotransporter polypeptide comprising immunoreacting the polypeptide with an antibody |
| XIV | 51 | A method of detecting a nucleic acid molecule |
| XV | 52-57 | An assay kit for detecting the presence of potassium-chloride cotransporter polypeptide, wherein the kit comprises numerous antibodies |
| XVI. | 60-63 | A method to determine the presence or absence of a mutation said method comprising the step of analyzing a nucleic acid sample. |
| XVII | 60-63 | A method to determine the presence or absence of a mutation said method comprising the step of analyzing a protein sample. |
| XVIII | 64-66 | A method of screening candidate substances for an ability to modulate potassium-chloride transporter biological activity |

Application No. 09/772,134

- XIX 67 A recombinant cell line
- XX 68-69 A method of identifying a candidate compound as a modulator of potassium-chloride cotransporter biological activity
- XXI 70- 76 A method of modulating potassium-chloride cotransporter biological activity in a vertebrate subject comprising administering an effective amount of a substance
- XXII 77-78 A pharmaceutical composition comprising a therapeutically effective amount of a polypeptide modulator of biological activity
- XXIII 79-83 A method for modulating potassium-chloride cotransporter comprising introducing to a tissue in a subject a construct comprising a nucleic acid sequence
- XXIV 84-87 A kit for detecting a polymorphism in a KCC gene comprising a reagent for detecting polymorphism
- XXV 88 A transgenic non-human animal having modified or deleted from its genome a nucleic acid molecule encoding a biographically active KCC polypeptide
- XXVI 89-90 An isolated Xenopus KCC potassium-chloride cotransporter polypeptide